



# Shadow Study

**60 Dundas Street East**  
City of Mississauga

**Almega Asset Management**

March 2022



Job Number  
2195

[www.bousfields.ca](http://www.bousfields.ca)

Urban Planning  
Urban Design  
Community Engagement

#### Toronto Office

3 Church Street, Suite 200  
Toronto, ON  
M5E 1M2

T. 416.947.9744  
F. 416.947.0781

#### Hamilton Office

1 Main Street East, Suite 200  
Hamilton, ON  
L8N 1E7

T. 905.549.3005  
F. 416.947.0781

# 1

## Introduction and Purpose

The following shadow study has prepared by Bousfields Inc., on behalf of Almega Asset Management, to demonstrate the general shadow impact for the development being proposed at the corner of Dundas Street East and Shepard Avenue – municipally known as 60 Dundas Street East (hereafter referred to as the "Subject Site"). The proposal consists of a mixed-use development that includes a 36-storey tower with a 3-storey podium in Phase 1 and a 33- and 29-storey tower with a 3- to 5-storey podium in Phase 2. Bousfields Inc. has prepared this shadow study report in accordance with Section 19.4.5 of the Mississauga Official Plan. This shadow study is based on the requirements set out in *Mississauga's Urban Design Terms of Reference – Standards for Shadow Studies June 2014*.

### 1.1 Site Latitude and Longitude

The latitude and longitude location of the Subject Site was defined by OpenStreetMap:

- Latitude: 43° 58' 12.85" N
- Longitude: 79° 61' 37.71" W

Astronomic north was determined by geolocating the 3D model in SketchUp Pro and using OpenStreetMap as context. The origin of the base plan was obtained from the City of Mississauga.

### 1.2 Time Zone

Eastern Time Zone (ET)

Standard Time: UTC - 5 hours - applies on December 21st

Daylight Time: UTC - 4 hours - applies on June 21st and

September 21st

### 1.3 Software Used to Prepare Shadow Analysis

SketchUp Pro was used for 3-dimensional modeling and exporting the shadow study imagery. Calculations were conducted through AutoCAD. Final composite images were completed in Adobe Photoshop.

### 1.4 Identified Areas

As per *Mississauga's Urban Design Terms of Reference – Standards for Shadow Studies June 2014*, the study identifies potential key areas surrounding the proposed development. These include:

- Residential Private Outdoor Amenity Spaces, including private rear yards, decks, patios and pools of surrounding residential dwellings;
- Communal Outdoor Amenity Areas, including public amenity areas and common outdoor amenity areas that are part of proposed or existing development;
- Public Realm, including sidewalks, open spaces, parks and plazas;
- Turf and Flower Gardens in public parks within the public realm, and;
- Building Faces to Allow for Possible Use of Solar Energy.

**Figure 1** - Key Map, identifies potential areas impacted by shadow (Refer to pages 2-3).



Figure 1 - Key Map



Legend

- |                      |                                 |                      |  |
|----------------------|---------------------------------|----------------------|--|
| Subject Site         | Developments Under Construction | Parks and Open Space | Communal Outdoor Amenity Areas                                       |
| Proposed Development | Approved Developments           | Public Plaza         | Residential Private Outdoor Amenity Spaces (7.5m from exterior wall) |
| Existing Buildings   |                                 |                      |  |

## **Parks**

1. Proposal: Parkland
2. Cooksville Creek
3. Cooksville Park
4. John C. Price Park

## **Public Plaza**

1. Cooksville Four Corners

## **Communal Outdoor Amenity Areas**

1. Proposal: Tower A South Outdoor Amenity Area *(Level 3)*
2. Proposal: Tower A North Outdoor Amenity Area *(Level 3)*
3. Proposal: Tower B and C Outdoor Amenity Area *(Level 5)*
4. Under Construction Artform Condo: South Outdoor Amenity Area at Grade
5. Under Construction Artform Condo: North Outdoor Amenity Area at Grade
6. 3100 Kirwin Avenue: Outdoor Pool
7. 3170 Kirwin Avenue: Outdoor Tennis Court
8. 3170 Kirwin Avenue: Outdoor Pool
9. 3170 Kirwin Avenue: Playground
10. Outdoor Basketball Court

# 2

## Shadow Analysis

### 2.1 Residential Private Outdoor Amenity Spaces

Section 3.1 of *Mississauga's Urban Design Terms of Reference – Standards for Shadow Studies June 2014*, states that shadow impacts from a proposed development should not exceed one hour in duration on areas such as private rear yards, decks, patios and pools of surrounding residential dwellings on each of the following dates: June 21st and September 21st. The criteria is met if there is shadow impact for no more than two consecutive hourly test times within the space between the exterior wall of the dwelling that abuts the amenity space and the line of impact assessment ("No Impact Zone").

#### Assessment:

Proposed shadows impact private amenity spaces (rear yards) of single-detached lots on following roads at certain test times:

- Cook Street and Agnes Street at 7:07am on June 21st;
- King Street East at 7:20pm and 7:33pm on June 21st;
- Frayne Court at 7:33pm on June 21st;
- McGill Street at 4:12pm on September 21st;
- and King Street East at 5:12pm and 5:48pm on September 21st

The proposed shadows do not exceed one hour in duration on any of the private amenity areas. As a result, the development is in accordance with the criteria.

### 2.2 Communal Outdoor Amenity Spaces

Section 3.2 of *Mississauga's Urban Design Terms of Reference – Standards for Shadow Studies June 2014*, states that shadows from proposed developments should allow for full sun on areas such as children's play areas, school yards, tot lots, park features such as sandboxes and wading pools, outdoor amenity areas used by seniors and those associated with commercial and employment areas at least half the time, or 50% sun coverage all the time, on each of the following dates: June 21st, September 21st and December 21st. The criteria is met if the "sun access factor" is at least 50% or 0.5 on each of the test dates ( $As(ave)/AT = 0.5$  or more). This criteria also applies to public amenity areas and common outdoor amenity areas that are part of a proposed or existing development.

#### Assessment:

June 21st:

- There is no shadow impact on communal outdoor amenity areas 4 to 10 on any of the test times. As a result, the criteria has been met with respect to those areas.
- The proposed north outdoor amenity area from Tower A at level 3 (Area 2) provides an overall sun access factor of 0.53. As a result, the criteria has been met.
- The proposed south outdoor amenity area from Tower A at level 3 (area 1) represents a sun access factor of 0.22. It is noted that at same level, the other outdoor amenity area (area 2) provides a sun

access factor of 0.53. In total, outdoor amenity area from Tower A at level 3 has an overall sun access factor of 0.51 that provides adequate sunshine on Jun 21st. Therefore, the below average sun access factor of area 1 can be considered negligible.

- The proposed rooftop amenity area from Tower B and C at level 5 (area 3) do not meet the criteria, representing a sun access factor of 0.39. In our opinion, this is acceptable because a central location of this amenity space serves as the most logical location, while allowing for appropriate spatial separation between tower elements with the Subject Site.

September 21st:

- There is no shadow impact on communal outdoor amenity areas 6 to 10 on any of the test times. As a result, the criteria has been met with respect to those areas.
- The outdoor amenity areas from under construction Artform Condo (areas 4 and 5) provide an overall sun access factor over 0.5 that meet the criteria.
- Areas 1, 2, and 3 from the proposed development do not meet the criteria. It is our opinion that the shadow impact is appropriate given the physical constraints of the site and in keeping with the intensified planning framework.

December 21st:

- Areas 1, 4, 6 to 10 have an overall sun access factor over 0.5. As a result, the criteria has been met
- Areas 2, 3 and 5 do not meet the criteria. However, It is noted that these outdoor spaces (i.e. patio, outdoor dining and terraces) would be closed for use in the winter season and as such, the utility of the space due to shadowing from the proposal is considered to be negligible.

## 2.3 Public Realm

Section 3.3 of *Mississauga's Urban Design Terms of Reference – Standards for Shadow Studies June 2014* requires the identification of Public Realm within the vicinity of the proposed development. Areas identified as Public Realm include: sidewalks, open spaces, parks and plazas.

### 2.3.1 Mixed-Use, Commercial, Employment and High Density Residential Streets

As defined by the Terms of Reference, developments should be designed to allow full sunlight on the opposite boulevard, including the full width for the sidewalk on September 21st as follows:

For a total of at least 5 hours which must include the 2 hour period between: 12:12pm and 2:12pm,

and an additional 2 hour period from either: 9:12am to 11:12am or from 3:12pm to 5:12pm.

#### Assessment:

Shepard Avenue:

The shadow analysis demonstrates that the Shepard Avenue to the west of the Subject Site allows for sunlight on the opposite sidewalk on September 21st for at least 5 hours, including the period between 12:12pm to 5:12pm. As a result, the criteria has been met

Dundas Street East:

The criteria has not been met for the opposite boulevards associated with Dundas Street East. It is our opinion that the shadow impact is appropriate given the site's location along City's Intensification Corridor (Schedule 1C) where a more urban built form context is contemplated.

### 2.3.2 Public Open Spaces, Parks and Plazas

As defined by the Terms of Reference, developments should be designed to provide a sun access factor of at least 50% on public open spaces, parks and plazas on September 21st. If the "sun access factor" is at least 50% or 0.5 on September 21st ( $As(ave)/AT = 0.5$  or more), then the shadow impact is considered to be in compliance with these terms of reference.

#### Assessment:

##### Proposed Parkland:

The proposed parkland has a sun access factor of 0.33 on September 21st impacted by both existing buildings and proposed development. It does not meet the criteria.

##### Cooksville Creek:

The proposal cast shadows onto Cooksville Creek on September 21st from 11:12am to 5:48pm. The proposal was designed to comply with the standard on September 21st (minimum 0.5), providing a sun access factor of 0.72. In addition, the proposal also provides a sun access factor of 0.75 on June 21st (although not required as per Terms of Reference).

##### Cooksville Park:

There is no shadow impact on Cooksville Park from the proposed development on September 21st. In general, it has a sun access factor over 0.5 receiving shadows from existing and planned buildings.

##### John C. Price Park:

There is no shadow impact on John C. Price Park from the proposed development on September 21st. In general, it has a sun access factor over 0.5 receiving shadows from existing and planned buildings.

##### Cooksville Four Corners Plaza:

There is no shadow impact on Cooksville Four Corners Plaza from the proposed development on September 21st. In general, it has a sun access factor over 0.5 receiving shadows from existing and planned buildings.

### 2.4 Turf and Flower Gardens

Section 3.4 of *Mississauga's Urban Design Terms of Reference – Standards for Shadow Studies June 2014* states that proposed developments should allow for adequate sunlight during the growing season from March to October by allowing for a minimum of 6 hours of direct sunlight on September 21st.

#### Assessment:

No turf or flower gardens have been identified to be impacted by the proposal and its shadows.

### 2.5 Building Faces to Allow for the Possibility of Using Solar Energy

Section 3.5 of *Mississauga's Urban Design Terms of Reference – Standards for Shadow Studies June 2014* states that shadow impacts from proposed developments should not exceed one hour in duration on roofs, front, rear, and exterior side walls of adjacent lower rise (one to four storeys) residential buildings on September 21st. Criteria is met if there is shadow impact for no more than two consecutive hourly test times in the "No Impact Zone" (i.e. the space between the front, rear and exterior side walls of the adjacent low rise residential buildings and the respective lines of impact assessment).

#### Assessment:

No building faces have been identified for the possibility of using solar energy, and as such, no impacts are produced by the proposal and its shadows.



# 3

## Sun Access Factor Calculations

### 3.1 Communal Outdoor Amenity Areas

Calculations have been carried out for communal outdoor areas affected by shadow from the proposed development only.

Test Time	Communal Outdoor Amenity Area Areas in Sunshine		
June 21st	1	2	3
	81	1121	559
7:07am	0	313	257
7:20am	0	459	280
8:20am	0	869	366
9:20am	0	636	419
10:20am	66	264	473
11:20am	27	206	529
12:20pm	0	787	521
1:20pm	81	517	357
2:20pm	81	438	33
3:20pm	10	410	0
4:20pm	0	537	5
5:20pm	0	671	36
6:20pm	0	824	w0
7:20pm	0	951	0
7:33pm	0	975	0
Average of Areas in Sunshine (As(ave))	18	590	218
Sun Access Factor	0.22	0.53	0.39

Test Time	Communal Outdoor Amenity Area Areas in Sunshine				
September 21st	1	2	3	4	5
	81	1121	559	192	172
8:35am	69	252	406	0	0
9:12am	50	88	507	74	25
10:12am	15	248	546	192	155
11:12am	0	725	524	192	172
12:12pm	37	162	470	192	172
1:12pm	81	24	360	192	0
2:12pm	81	374	161	192	0
3:12pm	81	545	0	16	130
4:12pm	21	379	0	0	38
5:12pm	0	471	0	0	142
5:48pm	0	532	0	0	134
Average of Areas in Sunshine (As(ave))	40	345	270	95	88
Sun Access Factor	0.49	0.31	0.48	0.50	0.51

Test Time	Communal Outdoor Amenity Area Areas in Sunshine									
December 21st	1	2	3	4	5	6	7	8	9	10
	81	1121	559	192	172	493	600	270	145	426
9:19am	0	15	0	192	150	221	287	16	145	132
10:17am	15	170	22	192	0	311	600	115	0	426
11:17am	61	34	262	191	105	481	600	204	0	426
12:17pm	81	22	362	5	0	493	600	269	38	426
1:17pm	81	270	220	0	0	368	600	270	145	424
2:17pm	81	399	98	155	73	32	600	270	136	369
3:15pm	81	549	0	7	28	0	600	270	73	243
Average of Areas in Sunshine (As(ave))	57	208	138	106	51	272	555	202	77	349
Sun Access Factor	0.71	0.19	0.25	0.55	0.30	0.55	0.93	0.75	0.53	0.82

## 3.2 Public Realm

### 3.2.1 Proposed Parkland

Proposed Parkland Area = 509 m <sup>2</sup>	
September 21st	Areas in sunshine (As)
8:35am	509
9:12am	363
10:12am	232
11:12am	167
12:12pm	121
1:12pm	125
2:12pm	140
3:12pm	101
4:12pm	71
5:12pm	0
5:48pm	0
Average of Areas in Sunshine (As(ave))	166
Sun Access Factor	0.33
Areas in Shadows	0.673 / 67.3%

### 3.2.2 Cooksville Creek

Cooksville Creek Area = 8,738 m <sup>2</sup>	
September 21st	Areas in sunshine (As)
8:35am	8621
9:12am	8685
10:12am	8681
11:12am	8166
12:12pm	7344
1:12pm	6789
2:12pm	6656
3:12pm	6619
4:12pm	3780
5:12pm	1791
5:48pm	1716
Average of Areas in Sunshine (As(ave))	6259
Sun Access Factor	0.72
Areas in Shadows	0.284 / 28.4%

Note: For September 21st – From the total areas that are shadowed (28.4%), only 41.9% of that total is from shadows cast by the proposed development; the difference (58.1%) is from shadows cast by existing surrounding buildings and buildings under construction.

# 4

## Conclusion

Based on the findings of this report, it is our opinion that the proposed shadow impacts and resulting sun access factors are relatively limited and appropriate.

The proposed development meets the shadow impact criteria for all existing amenity areas and public spaces. The areas that do not meet the shadow impact criteria are within the proposed development site and adjacent property to the northeast, which includes a building that is currently under construction. Efforts have been made to minimize shadow impacts by locating amenity areas within access to sun exposure.

It is our opinion that the shadow impact is appropriate given the site's location along the City's Intensification Corridor (Schedule 1C) where an urban built form context is contemplated. The proposal is supportive of the overall vision for redevelopment and intensification outlined in the Dundas Connects Master Plan. The proposed development has ensured the continued provision of adequate sunlight in the areas surrounding the Subject Site, in accordance with acceptable sun access factors sought by the City through the terms of reference.









In general, the shadows cast from the proposed development will not cause undue shade on the Subject Site and surrounding context. This includes building facades, private and public outdoor amenity and open spaces, public parkland, sidewalks and other components of the public realm, as outlined in the City's Terms of Reference.



7:07am - June 21st



## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		

7:20am - June 21st



## Legend











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| <span style="background-color: #ff9933; padding: 2px;"> </span> Proposed Development                 | <span style="background-color: #add8e6; padding: 2px;"> </span> Developments Under Construction | <span style="background-color: #cc0000; padding: 2px;"> </span> Public Plaza         | <span style="background-color: #90ee90; border: 1px dashed green; padding: 2px;"> </span> Residential Private Outdoor Amenity Spaces (7.5m from exterior wall) |
| <span style="background-color: #cc00ff; padding: 2px;"> </span> Shadows Cast by Proposed Development | <span style="background-color: #00ff99; padding: 2px;"> </span> Approved Developments           |  |  |



**8:20am - June 21st**



## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		

9:20am - June 21st



## Legend











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10:20am - June 21st












## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		

11:20am - June 21st



## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		



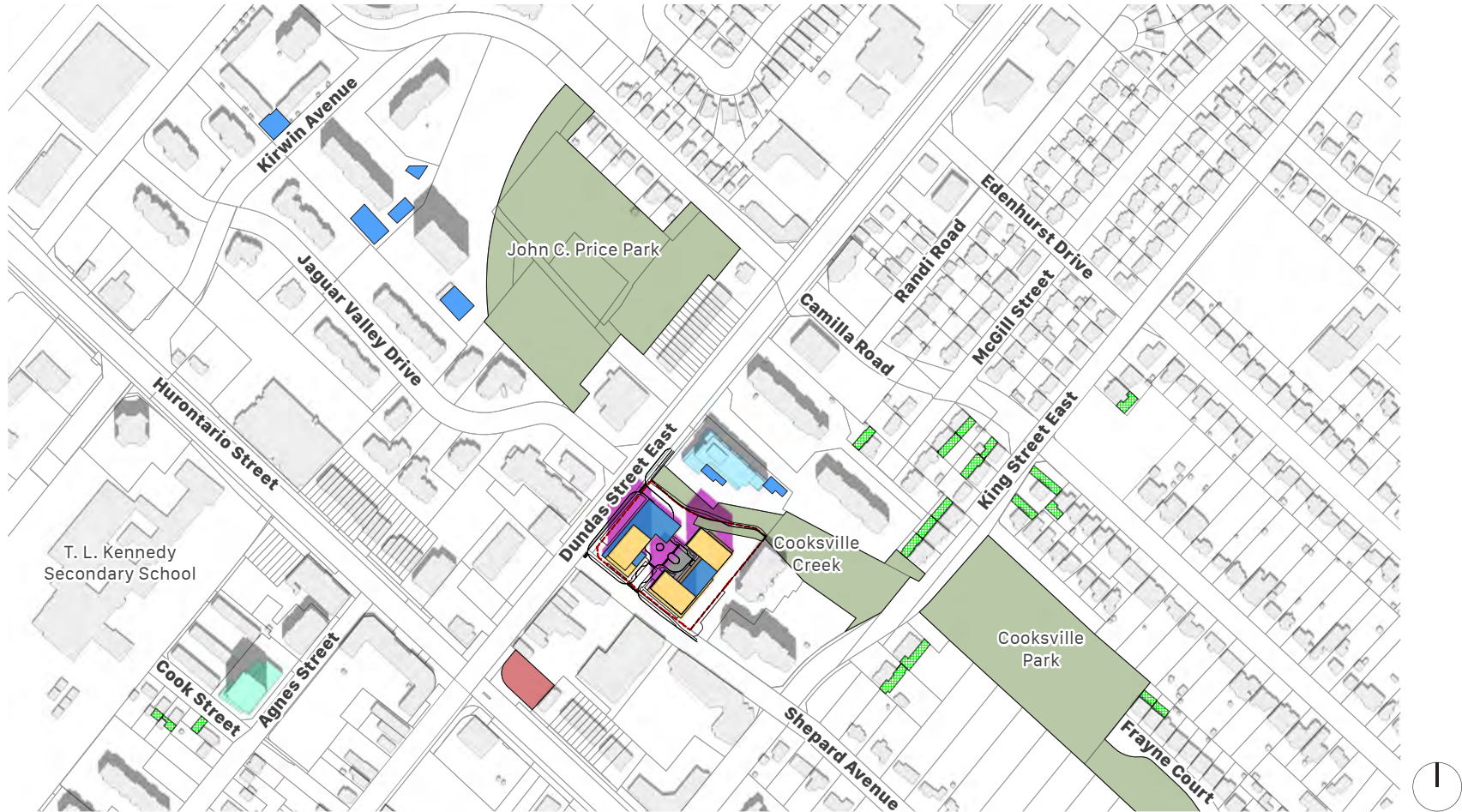
**12:20pm - June 21st**












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**1:20pm - June 21st**

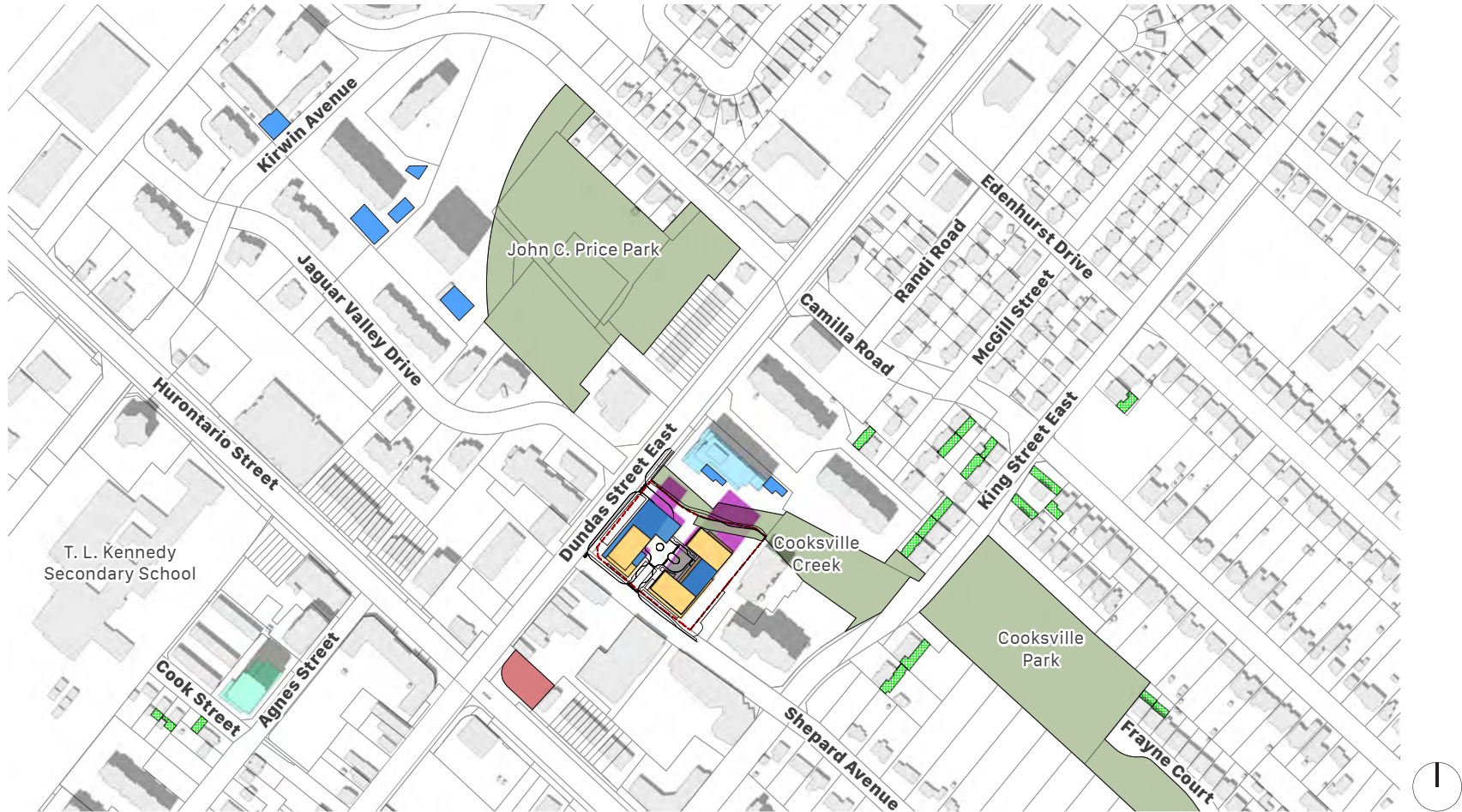


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




 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		



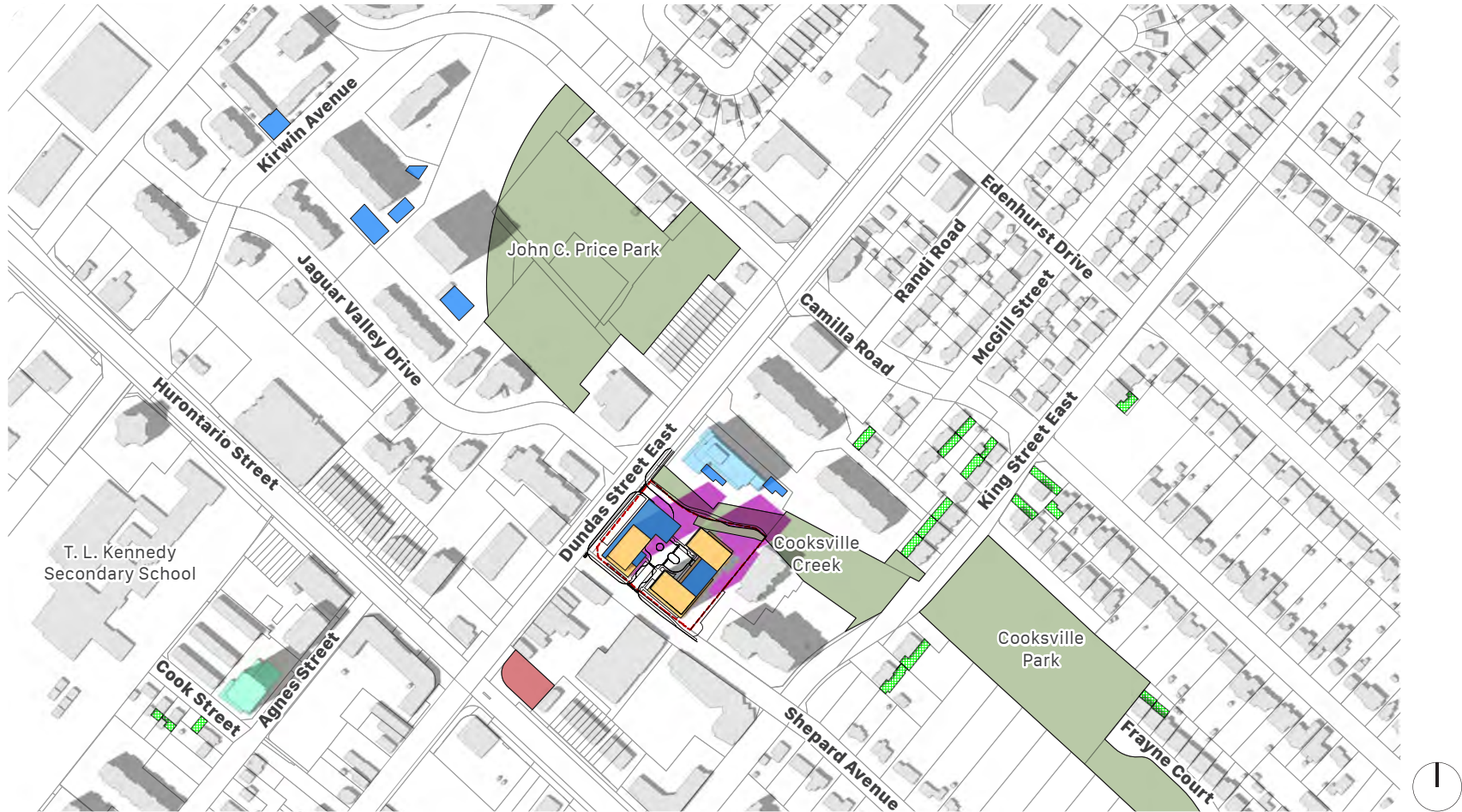
**2:20pm - June 21st**













## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		

**3:20pm - June 21st**



## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		



**4:20pm - June 21st**













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<span style="background-color: #f1c40f; border: 1px solid black; padding: 2px;"> </span> Proposed Development	<span style="background-color: #add8e6; border: 1px solid black; padding: 2px;"> </span> Developments Under Construction	<span style="background-color: #e74c3c; border: 1px solid black; padding: 2px;"> </span> Public Plaza	<span style="background-color: #2ecc71; border: 1px solid black; padding: 2px;"> </span> Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
<span style="background-color: #9b59b6; border: 1px solid black; padding: 2px;"> </span> Shadows Cast by Proposed Development	<span style="background-color: #2ecc71; border: 1px solid black; padding: 2px;"> </span> Approved Developments		

5:20pm - June 21st



## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		



**6:20pm - June 21st**



## Legend

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<span style="background-color: #cc00ff; border: 1px solid black; padding: 2px;"> </span> Shadows Cast by Proposed Development	<span style="background-color: #90ee90; border: 1px solid black; padding: 2px;"> </span> Approved Developments		

7:20pm - June 21st



## Legend











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|---|--|---|---|
| <span style="border: 2px dashed red; padding: 2px;"> </span> Subject Site   | <span style="border: 1px solid black; padding: 2px;"> </span> Existing Buildings   | <span style="background-color: #8ebf8e; border: 1px solid black; padding: 2px;"> </span> Parks and Open Space | <span style="background-color: #4a7ebb; border: 1px solid black; padding: 2px;"> </span> Communal Outdoor Amenity Areas                                       |
| <span style="background-color: #f4a460; border: 1px solid black; padding: 2px;"> </span> Proposed Development                 | <span style="background-color: #add8e6; border: 1px solid black; padding: 2px;"> </span> Developments Under Construction | <span style="background-color: #e9967a; border: 1px solid black; padding: 2px;"> </span> Public Plaza         | <span style="background-color: #c8e6c9; border: 1px solid black; padding: 2px;"> </span> Residential Private Outdoor Amenity Spaces (7.5m from exterior wall) |
| <span style="background-color: #d81b60; border: 1px solid black; padding: 2px;"> </span> Shadows Cast by Proposed Development | <span style="background-color: #90ee90; border: 1px solid black; padding: 2px;"> </span> Approved Developments           |   |   |



7:33pm - June 21st



## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		

8:35am - September 21st



## Legend











- |   |  |   |   |
|---|--|---|---|
| <span style="border: 2px dashed red; padding: 2px;"> </span> Subject Site   | <span style="border: 1px solid black; padding: 2px;"> </span> Existing Buildings   | <span style="background-color: #8ebf8e; border: 1px solid black; padding: 2px;"> </span> Parks and Open Space | <span style="background-color: #4a7ebb; border: 1px solid black; padding: 2px;"> </span> Communal Outdoor Amenity Areas                                       |
| <span style="background-color: #f4a460; border: 1px solid black; padding: 2px;"> </span> Proposed Development                 | <span style="background-color: #add8e6; border: 1px solid black; padding: 2px;"> </span> Developments Under Construction | <span style="background-color: #d9534f; border: 1px solid black; padding: 2px;"> </span> Public Plaza         | <span style="background-color: #c6efce; border: 1px solid black; padding: 2px;"> </span> Residential Private Outdoor Amenity Spaces (7.5m from exterior wall) |
| <span style="background-color: #cc00ff; border: 1px solid black; padding: 2px;"> </span> Shadows Cast by Proposed Development | <span style="background-color: #90ee90; border: 1px solid black; padding: 2px;"> </span> Approved Developments           |   |   |



9:12am - September 21st



## Legend











 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		



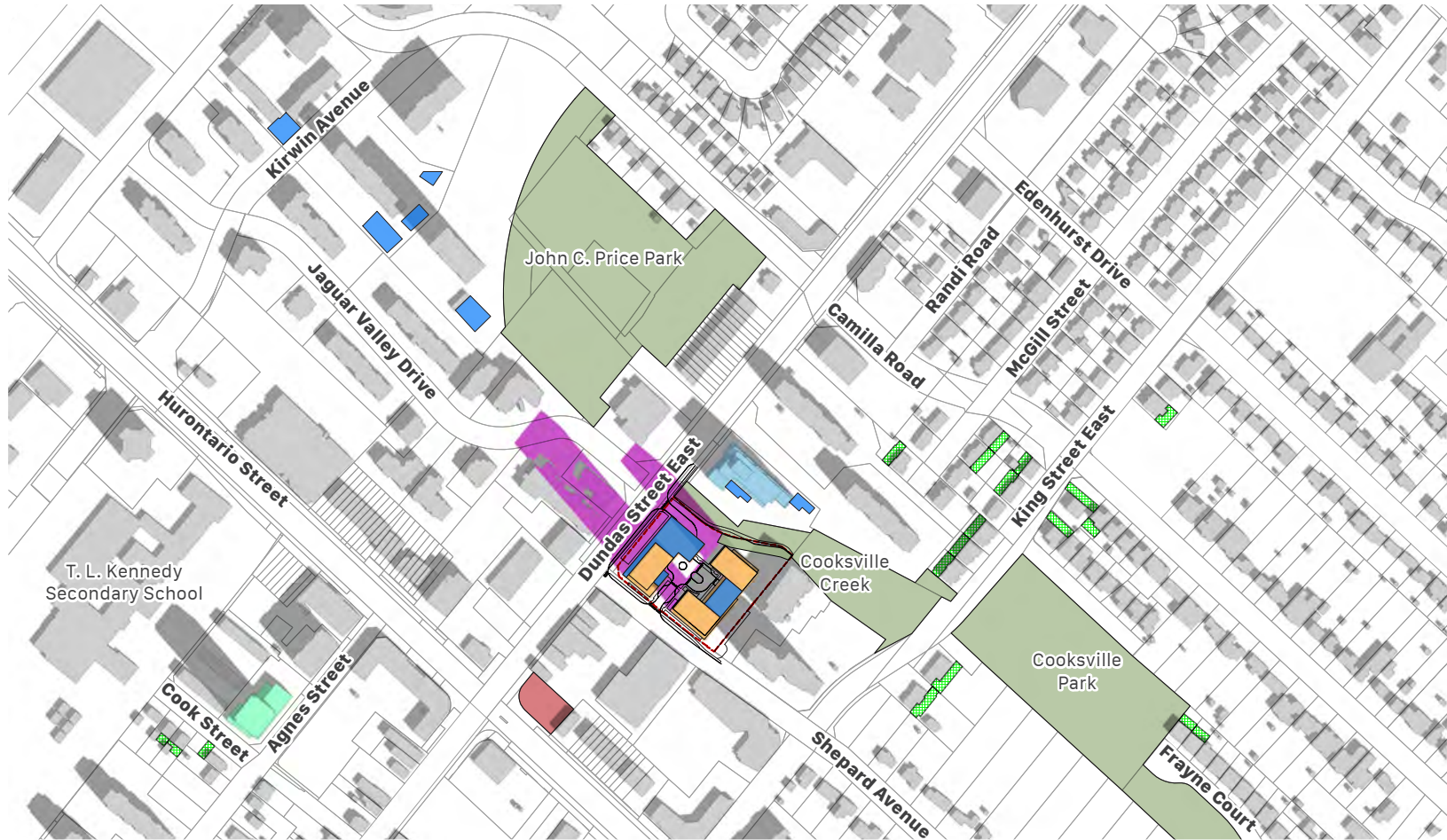
10:12am - September 21st










## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		

11:12am - September 21st

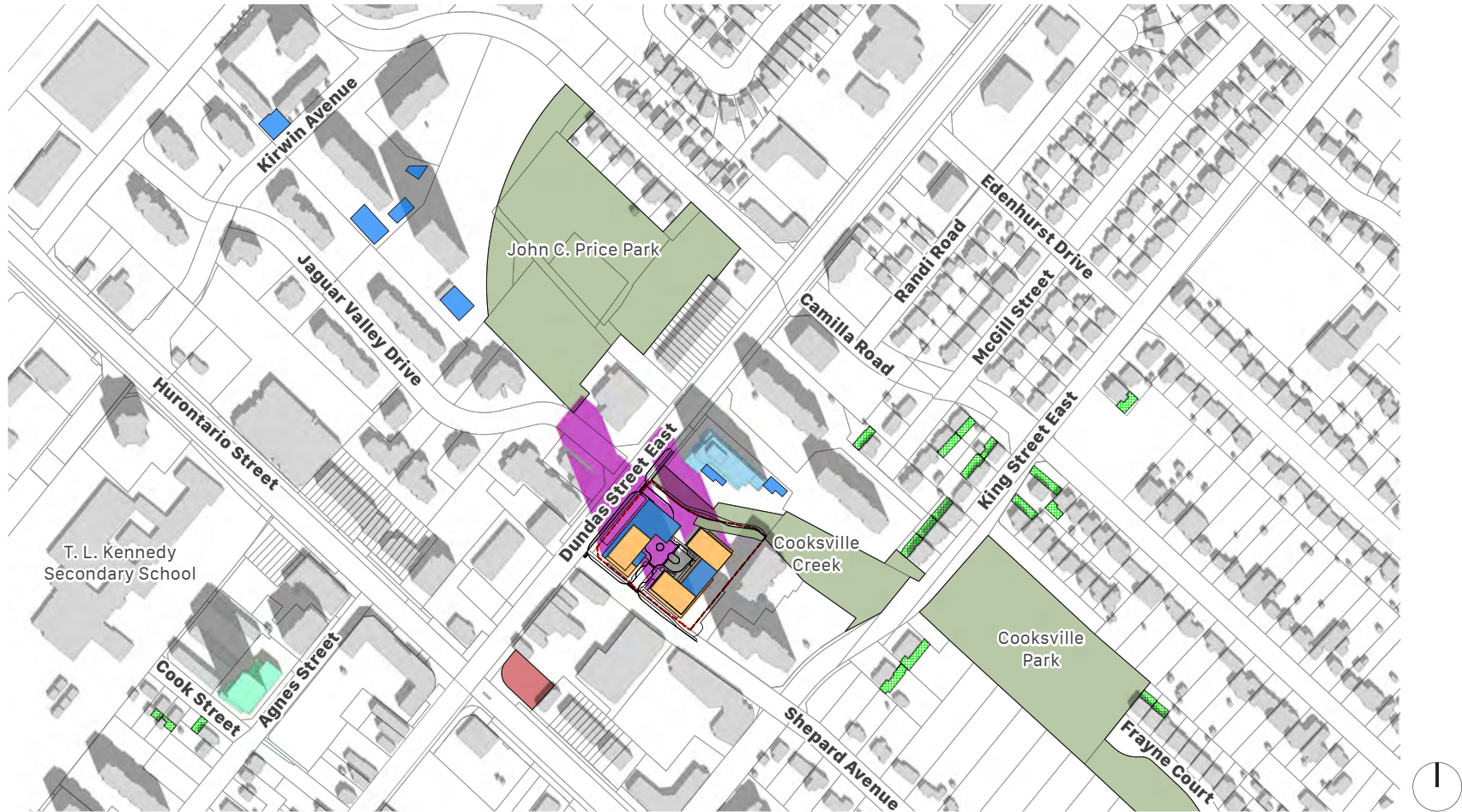


## Legend











 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		



12:12pm - September 21st



## Legend











 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		



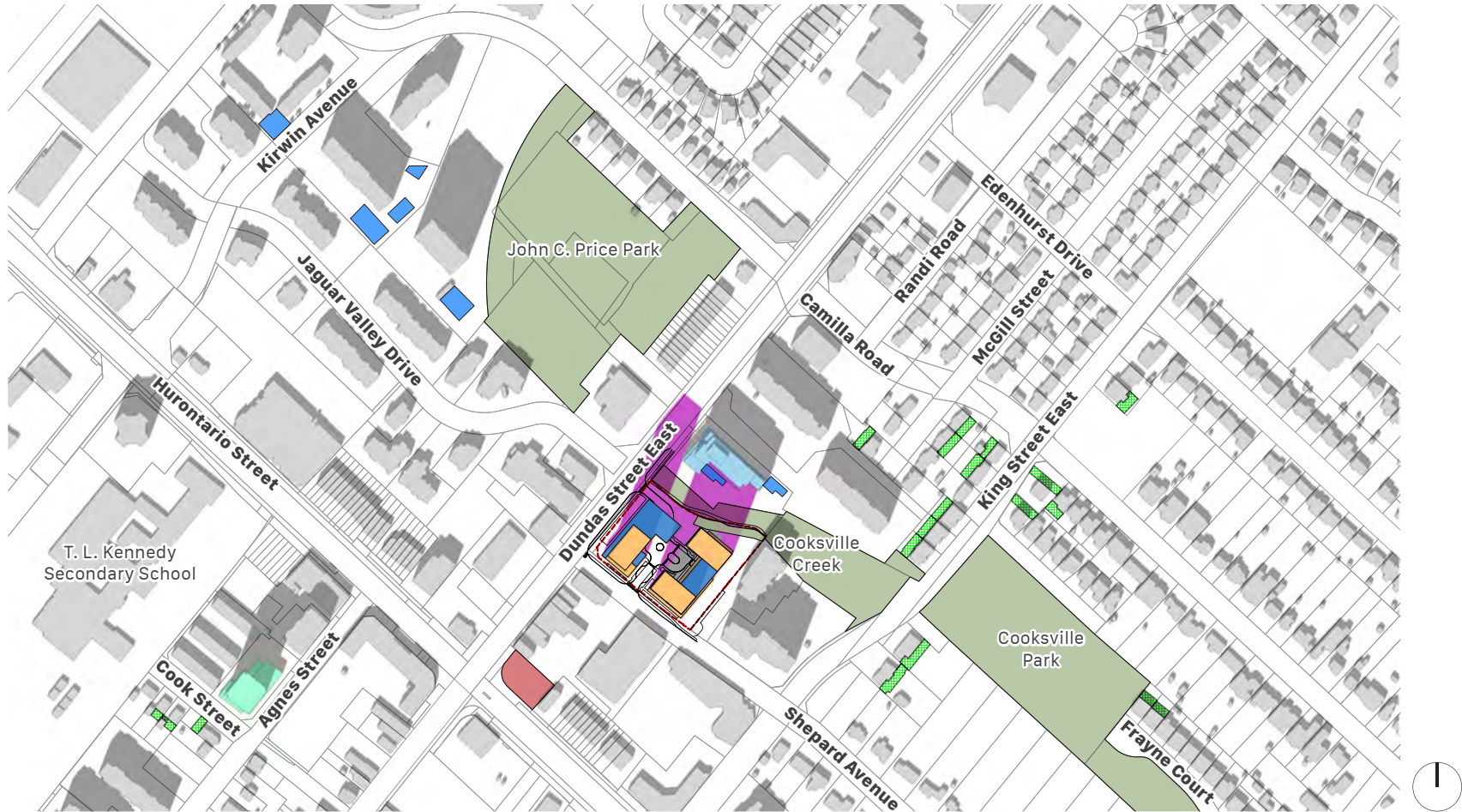
1:12pm - September 21st



## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		

2:12pm - September 21st



## Legend











- |  |   |  |  |
|--|---|--|--|
| <span style="border: 2px dashed red; padding: 2px;"> </span> Subject Site                            | <span style="border: 1px solid grey; padding: 2px;"> </span> Existing Buildings                 | <span style="background-color: #6aa84f; padding: 2px;"> </span> Parks and Open Space | <span style="background-color: #3498db; padding: 2px;"> </span> Communal Outdoor Amenity Areas   |
| <span style="background-color: #f1c40f; padding: 2px;"> </span> Proposed Development                 | <span style="background-color: #add8e6; padding: 2px;"> </span> Developments Under Construction | <span style="background-color: #e74c3c; padding: 2px;"> </span> Public Plaza         | <span style="background-color: #2ecc71; border: 1px dashed green; padding: 2px;"> </span> Residential Private Outdoor Amenity Spaces (7.5m from exterior wall) |
| <span style="background-color: #9b59b6; padding: 2px;"> </span> Shadows Cast by Proposed Development | <span style="background-color: #2ecc71; padding: 2px;"> </span> Approved Developments           |  |  |



**3:12pm - September 21st**



## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		



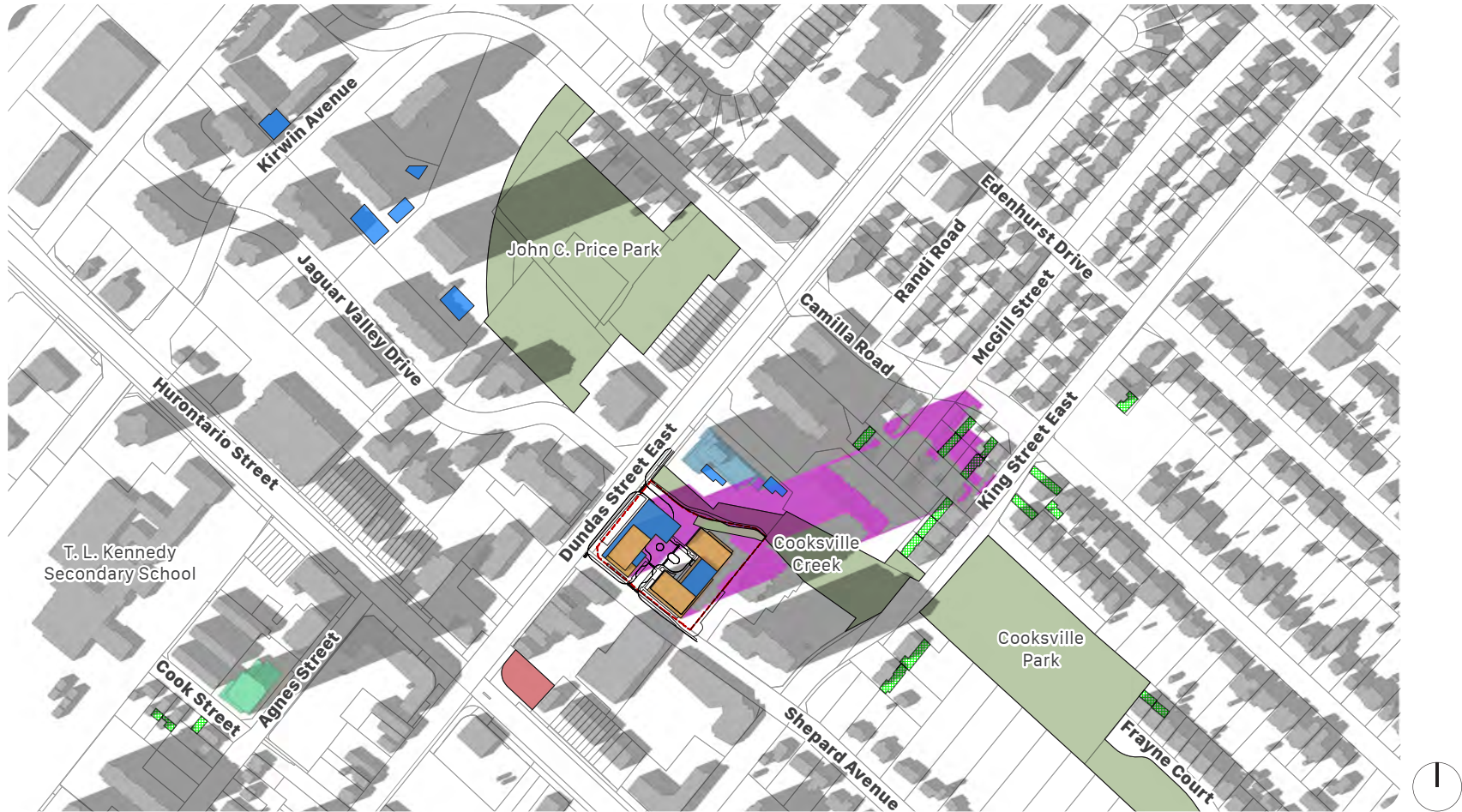
4:12pm - September 21st










## Legend

<span style="border: 2px dashed red; padding: 2px;"> </span> Subject Site	<span style="border: 1px solid black; padding: 2px;"> </span> Existing Buildings	<span style="background-color: #8ebf8e; border: 1px solid black; padding: 2px;"> </span> Parks and Open Space	<span style="background-color: #4a7ebb; border: 1px solid black; padding: 2px;"> </span> Communal Outdoor Amenity Areas
<span style="background-color: #f4a460; border: 1px solid black; padding: 2px;"> </span> Proposed Development	<span style="background-color: #add8e6; border: 1px solid black; padding: 2px;"> </span> Developments Under Construction	<span style="background-color: #d9534f; border: 1px solid black; padding: 2px;"> </span> Public Plaza	<span style="background-color: #c6efce; border: 1px solid black; padding: 2px;"> </span> Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
<span style="background-color: #cc00ff; border: 1px solid black; padding: 2px;"> </span> Shadows Cast by Proposed Development	<span style="background-color: #90ee90; border: 1px solid black; padding: 2px;"> </span> Approved Developments		

5:12pm - September 21st

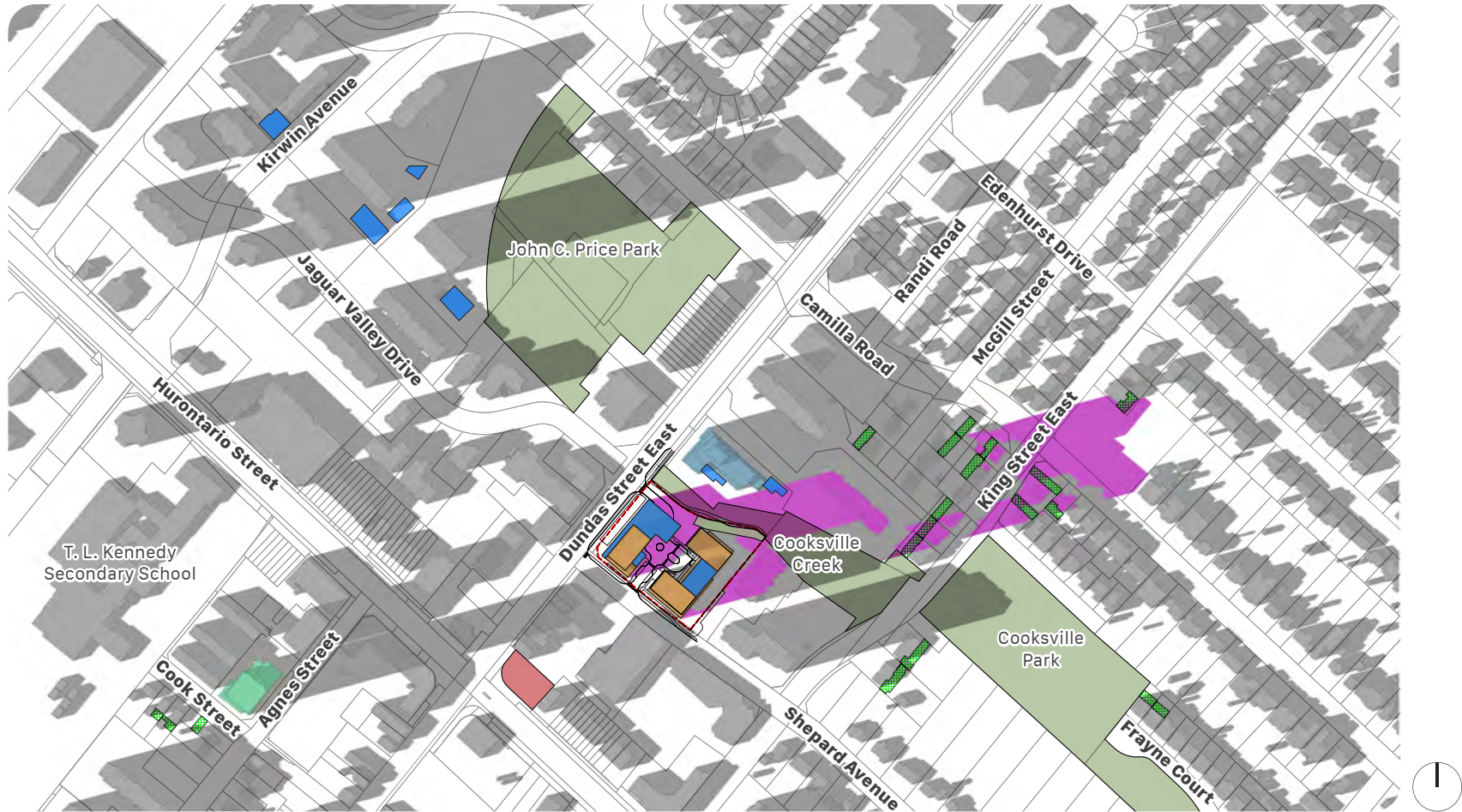


## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		



5:48pm - September 21st



## Legend











- |   |  |   |   |
|---|--|---|---|
| <span style="border: 2px dashed red; padding: 2px;"> </span> Subject Site   | <span style="border: 1px solid black; padding: 2px;"> </span> Existing Buildings   | <span style="background-color: #8ebf8e; border: 1px solid black; padding: 2px;"> </span> Parks and Open Space | <span style="background-color: #4a7ebb; border: 1px solid black; padding: 2px;"> </span> Communal Outdoor Amenity Areas                                       |
| <span style="background-color: #f4a460; border: 1px solid black; padding: 2px;"> </span> Proposed Development                 | <span style="background-color: #add8e6; border: 1px solid black; padding: 2px;"> </span> Developments Under Construction | <span style="background-color: #e74c3c; border: 1px solid black; padding: 2px;"> </span> Public Plaza         | <span style="background-color: #d4edda; border: 1px solid black; padding: 2px;"> </span> Residential Private Outdoor Amenity Spaces (7.5m from exterior wall) |
| <span style="background-color: #9b59b6; border: 1px solid black; padding: 2px;"> </span> Shadows Cast by Proposed Development | <span style="background-color: #2ecc71; border: 1px solid black; padding: 2px;"> </span> Approved Developments           |   |   |



9:19am - December 21st



## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		

10:17am - December 21st

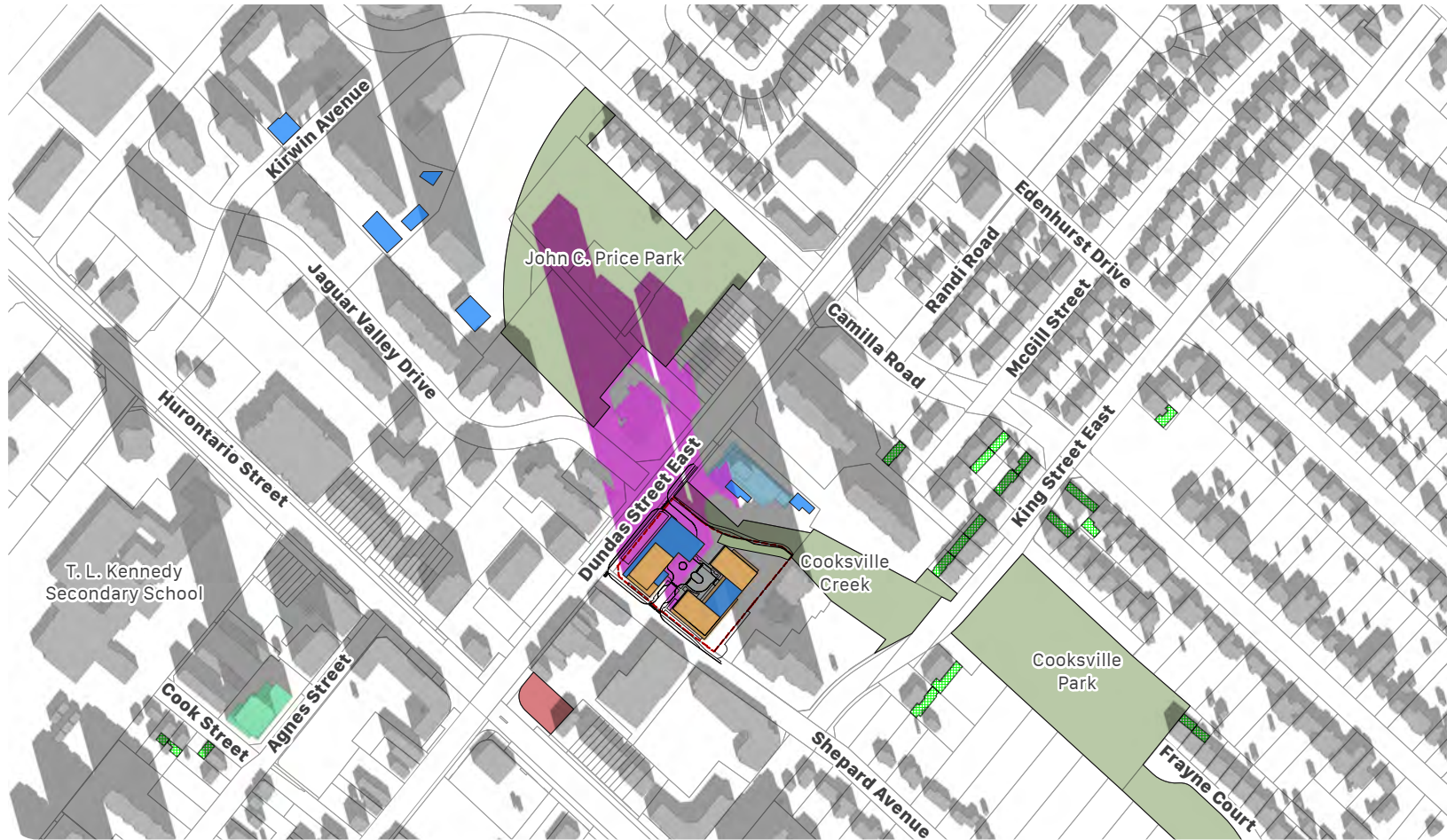


## Legend

<span style="border: 2px dashed red; padding: 2px;"> </span> Subject Site	<span style="border: 1px solid black; padding: 2px;"> </span> Existing Buildings	<span style="background-color: #8ebf8e; border: 1px solid black; padding: 2px;"> </span> Parks and Open Space	<span style="background-color: #4a7ebb; border: 1px solid black; padding: 2px;"> </span> Communal Outdoor Amenity Areas
<span style="background-color: #f4a460; border: 1px solid black; padding: 2px;"> </span> Proposed Development	<span style="background-color: #add8e6; border: 1px solid black; padding: 2px;"> </span> Developments Under Construction	<span style="background-color: #d9534f; border: 1px solid black; padding: 2px;"> </span> Public Plaza	<span style="background-color: #c6efce; border: 1px solid black; padding: 2px;"> </span> Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
<span style="background-color: #cc00ff; border: 1px solid black; padding: 2px;"> </span> Shadows Cast by Proposed Development	<span style="background-color: #90ee90; border: 1px solid black; padding: 2px;"> </span> Approved Developments		



11:17am - December 21st



## Legend











<span style="border: 2px dashed red; padding: 2px;"> </span> Subject Site	<span style="border: 1px solid black; padding: 2px;"> </span> Existing Buildings	<span style="background-color: #8ebf8e; border: 1px solid black; padding: 2px;"> </span> Parks and Open Space	<span style="background-color: #4a7ebb; border: 1px solid black; padding: 2px;"> </span> Communal Outdoor Amenity Areas
<span style="background-color: #f4a460; border: 1px solid black; padding: 2px;"> </span> Proposed Development	<span style="background-color: #add8e6; border: 1px solid black; padding: 2px;"> </span> Developments Under Construction	<span style="background-color: #d9534f; border: 1px solid black; padding: 2px;"> </span> Public Plaza	<span style="background-color: #c6efce; border: 1px solid black; padding: 2px;"> </span> Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
<span style="background-color: #cc00ff; border: 1px solid black; padding: 2px;"> </span> Shadows Cast by Proposed Development	<span style="background-color: #90ee90; border: 1px solid black; padding: 2px;"> </span> Approved Developments		



12:17pm - December 21st



## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		

**1:17pm - December 21st**



## Legend











<span style="border: 2px dashed red; padding: 2px;"> </span> Subject Site	<span style="border: 1px solid black; padding: 2px;"> </span> Existing Buildings	<span style="background-color: #92d050; border: 1px solid black; padding: 2px;"> </span> Parks and Open Space	<span style="background-color: #4682b4; border: 1px solid black; padding: 2px;"> </span> Communal Outdoor Amenity Areas
<span style="background-color: #ffa500; border: 1px solid black; padding: 2px;"> </span> Proposed Development	<span style="background-color: #add8e6; border: 1px solid black; padding: 2px;"> </span> Developments Under Construction	<span style="background-color: #f08080; border: 1px solid black; padding: 2px;"> </span> Public Plaza	<span style="background-color: #90ee90; border: 1px solid black; padding: 2px;"> </span> Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
<span style="background-color: #800080; border: 1px solid black; padding: 2px;"> </span> Shadows Cast by Proposed Development	<span style="background-color: #7fffd4; border: 1px solid black; padding: 2px;"> </span> Approved Developments		



2:17pm - December 21st



## Legend











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|--|---|--|--|
|  Subject Site                         |  Existing Buildings              |  Parks and Open Space |  Communal Outdoor Amenity Areas                                       |
|  Proposed Development                 |  Developments Under Construction |  Public Plaza         |  Residential Private Outdoor Amenity Spaces (7.5m from exterior wall) |
|  Shadows Cast by Proposed Development |  Approved Developments           |  |  |



**3:15pm - December 21st**



## Legend

 Subject Site	 Existing Buildings	 Parks and Open Space	 Communal Outdoor Amenity Areas
 Proposed Development	 Developments Under Construction	 Public Plaza	 Residential Private Outdoor Amenity Spaces (7.5m from exterior wall)
 Shadows Cast by Proposed Development	 Approved Developments		

